What is claimed is:

1. A fuel injection apparatus comprising:

a valve body that includes a valve seat, which is formed in an inner peripheral surface of the valve body that forms a fuel passage in the valve body;

an injection hole plate that is arranged downstream of the valve seat and includes a wall, which has a plurality of injection holes, wherein the injection holes penetrate through the wall of the injection hole plate to inject fuel supplied from the fuel passage, and each injection hole of the injection hole plate includes:

at least one first-side hole section that extends from an upstream end of the wall of the injection hole plate to an axially intermediate point of the wall of the injection hole plate, which is located between the upstream end of the wall and a downstream end of the wall; and

a second-side hole section that extends from the downstream end of the wall of the injection hole plate and is communicated with the at least one first-side hole section, wherein the at least one first-side hole section discharges fuel into the second-side hole section in a manner that forms a swirl fuel flow in the second-side hole section; and

a valve member that is reciprocably received in the valve body and is seatable against the valve seat, wherein the valve member enables fuel injection from the injection holes when the valve member is lifted away from the valve seat, and the valve

member disables fuel injection from the injection holes when the valve member is seated against the valve seat.

2. The fuel injection apparatus according to claim 1, wherein the at least one first-side hole section of each injection hole includes a plurality of first-side hole sections.

3. The fuel injection apparatus according to claim 1, wherein at least a downstream end of each first-side hole section extends in one of:

a direction of a tangent line to an imaginary circle, which is concentric with an upstream end of the second-side hole section; and

a direction that is axially angled to the tangent line to the imaginary circle on the upstream side of the imaginary circle.

4. The fuel injection apparatus according to claim 1, wherein the second-side hole section has a circular cross section.

5. The fuel injection apparatus according to claim 1, wherein a swirl direction of the swirl fuel flow in one of each adjacent two second-side hole sections of the injection hole plate is opposite to a swirl direction of the swirl fuel flow in the other one of each adjacent two second-side hole sections.

6. A fuel injection apparatus comprising:

a valve body that includes a valve seat, which is formed

in an inner peripheral surface of the valve body that forms a fuel passage in the valve body;

an injection hole plate that is arranged downstream of the valve seat and includes a wall, which has a plurality of injection holes, wherein the injection holes penetrate through the wall of the injection hole plate to inject fuel supplied from the fuel passage, and each injection hole of the injection hole plate includes:

at least one first-side hole section that extends from an upstream end of the wall of the injection hole plate to an axially intermediate point of the wall of the injection hole plate, which is located between the upstream end of the wall and a downstream end of the wall;

a collision portion, in which fuel flows supplied from the at least one first-side hole section collide with one another; and

at least one second-side hole section that extends from the downstream end of the wall of the injection hole plate and is communicated with the at least one first-side hole section, wherein the at least one second-side hole section conducts fuel collided in the collision portion to the downstream end of the wall of the injection hole plate; and

a valve member that is reciprocably received in the valve body and is seatable against the valve seat, wherein the valve member enables fuel injection from the injection holes when the valve member is lifted away from the valve seat, and the valve member disables fuel injection from the injection holes when the

valve member is seated against the valve seat.

7. The fuel injection apparatus according to claim 6, wherein:

the at least one first-side hole section includes a plurality of first-side hole sections, each of which forms a predetermined angle relative to a direction parallel to an axis of the injection hole plate; and

the collision portion is formed in an upstream end of the at least one second-side hole section where an imaginary extension line of each first-side hole section, which is parallel to a central axis of the first-side hole section crosses.

8. The fuel injection apparatus according to claim 7, wherein each first-side hole section is communicated with the upstream end of the at least one second-side hole section.

9. The fuel injection apparatus according to claim 7, wherein each first-side hole section is communicated with an axially intermediate point of the at least one second-side hole section, which is axially positioned between the upstream end of the at least one second-side hole section and a downstream end of the at least one second-side hole section.

10. The fuel injection apparatus according to claim 6, wherein:

the at least one first-side hole section includes a plurality of first-side hole sections;

a first one of the first-side hole sections is coaxial with

the at least one second-side hole section;

the rest of the first-side hole sections other than the first one forms a predetermined angle relative to a direction parallel to an axis of the injection hole plate; and

the collision portion is formed in a connection where the first-side hole sections are connected to the at least one second-side hole section.

11. The fuel injection apparatus according to claim 6, wherein:

the at least one first-side hole section includes a plurality of first-side hole sections;

the at least one second-side hole section includes a plurality of second-side hole sections; and

the first-side hole sections and the second-side hole sections form a predetermined angle relative to a direction parallel to an axis of the injection hole plate and are connected together at a single location where the collision portion is formed.

12. The fuel injection apparatus according to claim 6, wherein:

the at least one first-side hole section is formed into a conical frustum shape with a progressively decreasing inner diameter, which progressively decreases from an upstream end of the first-side hole section to the axially intermediate point of the injection hole plate; and

the at least one second-side hole section is communicated with a downstream end of the at least one first-side hole section

through the collision portion.

13. The fuel injection apparatus according to claim 12, wherein the at least one second-side hole section is formed into a conical frustum shape with a progressively increasing inner diameter, which progressively increases from the collision portion to a downstream end of the at least one second-side hole section.

14. An injection hole plate for a fuel injection apparatus, the injection hole plate comprising a wall, which has a plurality of injection holes that penetrate through the wall of the injection hole plate to inject fuel, wherein each injection hole of the injection hole plate includes:

at least one first-side hole section that extends from an upstream end of the wall of the injection hole plate to an axially intermediate point of the wall of the injection hole plate, which is located between the upstream end of the wall and a downstream end of the wall; and

a second-side hole section that extends from the downstream end of the wall of the injection hole plate and is communicated with the at least one first-side hole section, wherein the at least one first-side hole section discharges fuel into the second-side hole section in a manner that forms a swirl fuel flow in the second-side hole section.

15. An injection hole plate for a fuel injection apparatus, the injection hole plate comprising a wall, which has a plurality of

injection holes that penetrate through the wall of the injection hole plate to inject fuel, wherein each injection hole of the injection hole plate includes:

at least one first-side hole section that extends from an upstream end of the wall of the injection hole plate to an axially intermediate point of the wall of the injection hole plate, which is located between the upstream end of the wall and a downstream end of the wall;

a collision portion, in which fuel flows supplied from the at least one first-side hole section collide with one another; and

at least one second-side hole section that extends from the downstream end of the wall of the injection hole plate and is communicated with the at least one first-side hole section, wherein the at least one second-side hole section conducts fuel collided in the collision portion to the downstream end of the wall of the injection hole plate.